



B.E./B.Tech.(Full Time) DEGREE END SEMESTER EXAMINATIONS, APRIL / MAY 2012

CIVIL ENGINEERING BRANCH

SECOND SEMESTER

CE 181 – CONSTRUCTION MATERIALS

(REGULATIONS 2004)

Time : 3 hrs

Max Marks: 100

Answer ALL Questions

Part – A (10 x 2 = 20 Marks)

1. What is the function of refractory bricks?
2. Give the advantages of using light weight concrete blocks in buildings.
3. Why is the process of hydration important in cement?
4. What is the significance of grading of sand?
5. What is ready mix concrete?
6. Draw the stress- strain curve for steel when subjected to tension.
7. What is modulus of rupture?
8. List out the constituents of paint.
9. What is the significance of conducting flakiness index test on coarse aggregates?
10. Give the functions of geomembranes.

Part – B (5 x 16 = 80 Marks)

11. Explain in detail the various tests conducted on cement. (16)
12. a) (i) Explain the procedure of manufacture of clay bricks (8)
(ii) What are the usual tests specified for cement concrete blocks (8)

(OR)

b) (i) Discuss in detail the geological, physical and chemical classification of rocks. (12)

(ii) What are the common building stones used in building construction? (4)

13. a) Explain the Indian Standard method of mix proportioning of concrete. (16)

(OR)

b) Describe in detail the factors affecting the workability of fresh concrete. (16)

14. a) Write short notes on (i) Plywood (6)

(ii) Veneers (5)

(iii) Thermocole (5)

(OR)

b) Describe in detail the types of heat treatment of steel and their uses. (16)

15. a) (i) Discuss about the constituents of glass and also explain their uses in buildings. (12)

(ii) What are the commonly used clay products for construction of a building? (4)

(OR)

b) Write short notes on (i) Laminar Composites (8)

(ii) Fibre textiles (8)